

Appl. No.: 10/572,710
Reply to Advisory Action of: 08/01/2008

REMARKS

Claims 1-9, 11-14, 15-23, and 25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Hinckley et al. (Research Publication ACM UIST 2000 Symposium on User Interface Software and Technology, "Sensing Techniques for Mobile Interaction", CHI Letters vol. 2, 2, pp. 91-100). Claims 10 and 24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Hinckley in view Kalinski et al. (US 2003/0174307). The examiner is requested to reconsider these rejections.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

Applicants have amended claim 1 to recite, *inter alia*, "the processor is configured to receive an indication of the detected incline in the first plane from the incline sensor and control the display to display, to a user of the mobile cellular telephone, a bar and an item, at a position within the bar dependent upon the received indication, the position of the item within the bar representative of the sense and amount of inclination of the mobile cellular telephone in the first plane". Support for this amendment may be found on page 4, lines 10 to 16 and page 7, lines 12 to 14.

Embodiments of applicants' invention relate to a mobile cellular telephone 10 which includes an incline sensor 16 that is arranged to detect the inclination of the mobile telephone 10. The mobile telephone 10 also includes a processor 12 which is arranged to receive signals from the incline sensor

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16 when the mobile telephone 10 is placed in an inclinometer mode (i.e. a mode where the telephone acts as an instrument for enabling a user to measure the inclination of the mobile telephone).

In operation, a user may navigate a menu structure displayed on the display of the mobile telephone 10 and select an option entitled 'Inclinometer'. If this option is selected, the mobile telephone 10 enters the inclinometer mode and the processor 12 is then configured to receive signals from the incline sensor 16 and control a display 14 to display a bar and an item, at a position within the bar, whose position is dependent upon the inclination measured by the incline sensor 16. The position of the item within the bar is representative of the sense and amount of inclination of the mobile cellular telephone in the first plane. As mentioned on page 4, lines 9 to 13 the mobile telephone can emulate a spirit level and thereby enable a user to measure the inclination of a surface (please see page 5, lines 15 to 34).

In contrast, Hinckley merely describes a mobile device (in particular, a sensor-enriched mobile device based on the Cassiopeia E-105 Palm-sized PC) that includes a plurality of different sensors (proximity range sensor, touch sensitivity sensor and a tilt sensor) for controlling aspects of the mobile devices functionality and graphical user interface.

As mentioned on page 93, first paragraph, the tilt sensor is a two axis linear accelerometer that detects the tilt of the device relative to the constant acceleration of gravity. The tilt sensors are used to detect the tilt angle of the device

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and then control the display so that an image is displayed in a landscape mode or a portrait mode according to the detected tilt of the device (please see page 96 and Fig. 8). Fig. 9 illustrates how the device selects the portrait/landscape mode according to the detected angle of the device.

The tilt sensors may be used to scroll through items on a display (please see page 97) and the rate of scrolling may be dependent upon the tilt angle. The tilt sensors may also be used to determine when the device should be powered on/off in conjunction with other sensors (please see page 98).

Hinckley does not disclose or suggest a mobile cellular telephone that has an inclinometer mode, in which the processor is configured to receive an indication of the detected incline in the first plane from the incline sensor and control the display to display a bar and an item, at a position within the bar, whose position is dependent upon the inclination measured by the incline sensor as claimed in claim amended 1.

In regards to the examiner's response to arguments on page 12, third paragraph, of the office action, applicants submit that a user would not be able to measure the inclination of the device in Hinckley from the scroll speed (as alleged by the examiner). It would not be possible for a user to accurately determine the angle of tilt from the scroll speed in Hinckley because no numerical value for the angle of tilt is displayed on the device. The user would only be able to view the information displayed on the display of the device move slowly or quickly. Consequently, a user may, at best, be able to

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make a rough guess at the tilt angle (i.e. small, medium or large for example) but would not be able to measure the actual angle as in embodiments of the present invention which provide an inclinometer mode.

The features of claim 1 are not disclosed or suggested in the art of record. Therefore, claim 1 is patentable and should be allowed.

Claim 24 claims "wherein the mobile cellular telephone emulates a spirit level when it is in the inclinometer mode". Similar to the arguments present above with respect to claim 1, Hinckley does not disclose or suggest a mobile cellular telephone that has an inclinometer mode. Kalinski discloses an image capture apparatus 10 that is arranged to detect the apparatus' orientation when an image is captured. The apparatus is arranged to store the image and associate the stored orientation information therewith. The orientation information may be used to select an image capture mode which orients the captured image by rotating it (please see paragraph 85).

Kalinski does not disclose that "the mobile cellular telephone emulates a spirit level when it is in the inclinometer mode" as recited in claim 24. Firstly, Kalinski does not disclose "an inclinometer mode" as recited in claim 24 (i.e. there is no disclosure of an inclinometer setting). Secondly, spirit levels are devices which enable a user to view the inclination of a surface. Kalinski does not disclose that the sensors are visible to a user during use and consequently, the sensors are not analogous to a spirit level. Therefore, claim 24 is not

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rendered obvious by the combination of Hinckley and Kalinski. The features of claim 24 are not disclosed or suggested in the art of record. Therefore, claim 24 is patentable and should be allowed.

Though dependent claims 2-10, 13, and 14 contain their own allowable subject matter, these claims should at least be allowable due to their dependence from allowable claim 1. However, to expedite prosecution at this time, no further comment will be made.

Applicants have amended claim 11 to recite, *inter alia*, "the processor is configured to determine an approximate orientation of the mobile telephone from inputs from the first and second incline sensors and automatically control the display to display, to a user of the mobile cellular telephone, a first bar, a first item, a second bar and a second item, wherein a position of the first item within the first bar is representative of the incline in the first orientation, and wherein a position of the second item within the second bar is representative of the incline in the second orientation". Similar to the arguments presented above with respect to claim 1, Hinckley does not disclose or suggest a mobile cellular telephone configured to display bars and items, at positions within the bars, whose positions are dependent upon the inclination measured by the incline sensors. Additionally, Hinckley does not teach or suggest a mobile cellular telephone that has an inclinometer mode, and a user would not be able to measure the inclination of the device in Hinckley from the scroll speed (as alleged by the examiner). The features of claim 11 are not disclosed or

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suggested in the art of record. Therefore, claim 11 is patentable and should be allowed.

Applicants have amended claim 15 to recite, *inter alia*, "controlling a display to display, to a user of the mobile telephone, a bar and an item, at a position within the bar dependent upon the detected inclination, the position of the item within the bar representative of the sense and amount of inclination of the mobile telephone in the first plane". Similar to the arguments presented above with respect to claim 1, Hinckley does not disclose or suggest a mobile cellular telephone configured to display a bar and an item, at a position within the bar, whose position is dependent upon the inclination measured by the incline sensor. Additionally, Hinckley does not disclose or suggest a mobile cellular telephone that has an inclinometer mode, and a user would not be able to measure the inclination of the device in Hinckley from the scroll speed (as alleged by the examiner). The features of claim 15 are not disclosed or suggested in the art of record. Therefore, claim 15 is patentable and should be allowed.

Though dependent claims 16-23 contain their own allowable subject matter, these claims should at least be allowable due to their dependence from allowable claim 15. However, to expedite prosecution at this time, no further comment will be made.

Applicants have amended claim 25 to recite, *inter alia*, "the processor is configured to receive an indication of the detected incline in the first plane from the incline sensor

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and control the display to display, to a user of the mobile telephone, a bar and an item, at a position within the bar, dependent upon the received indication, wherein the position of the item within the bar provides an indication to the user of the incline of the mobile cellular telephone in the first plane, and wherein the processor is configured to position the item at a central location within the bar when the inclination of the mobile cellular telephone in the first plane is substantially zero". Support for this amendment may be found on page 4, lines 15 to 20 and page 7, lines 12 to 14.

Similar to the arguments presented above with respect to claim 1, Hinckley does not disclose or suggest a mobile cellular telephone configured to display a bar and an item, at a position within the bar, whose position is dependent upon the inclination measured by the incline sensor. Additionally, Hinckley does not disclose or suggest a mobile cellular telephone that has an inclinometer mode, and a user would not be able to measure the inclination of the device in Hinckley from the scroll speed (as alleged by the examiner). The features of claim 25 are not disclosed or suggested in the art of record. Therefore, claim 25 is patentable and should be allowed.

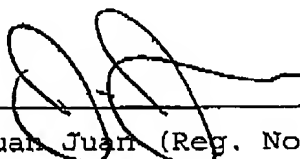
Claim 26 has been added above to further claim the features recited therein. Support for this amendment may be found on page 2, lines 26 to 32, page 4, lines 10 to 16, page 7, lines 12 to 14, and Fig. 1.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are

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clearly novel and patentable over the prior art of record. Accordingly, favorable reconsideration and allowance is respectfully requested. If there are any additional charges with respect to this Amendment or otherwise, please charge deposit account 50-1924 for any fee deficiency. Should any unresolved issue remain, the examiner is invited to call applicants' attorney at the telephone number indicated below.

Respectfully submitted,



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9/26/2008

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